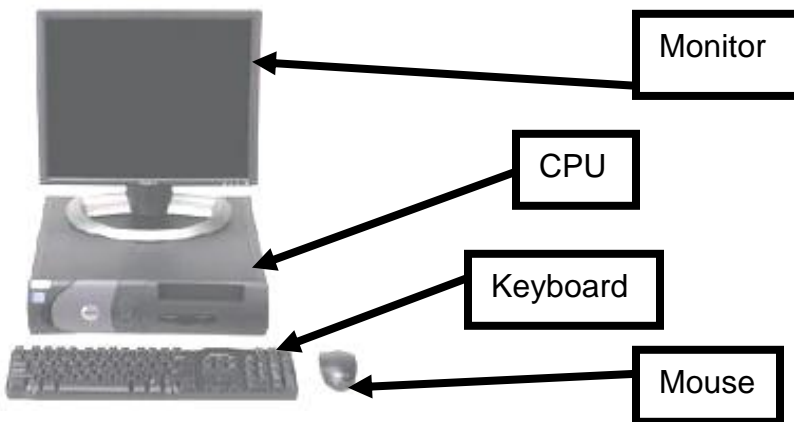






## Parts of a Computer

### Hardware

Hardware is a term for computer equipment.



<p><b>The Monitor</b> The monitor displays the content and the operations of the computer.</p> 	<p><b>The Mouse</b> The mouse is an input device that lets you communicate with the computer.</p> 
<p><b>The CPU</b> The CPU (Central Processing Unit) is where the internal components of the computer are stored.</p> 	<p><b>The Keyboard</b> The keyboard is another input device that lets you communicate with the computer.</p> 

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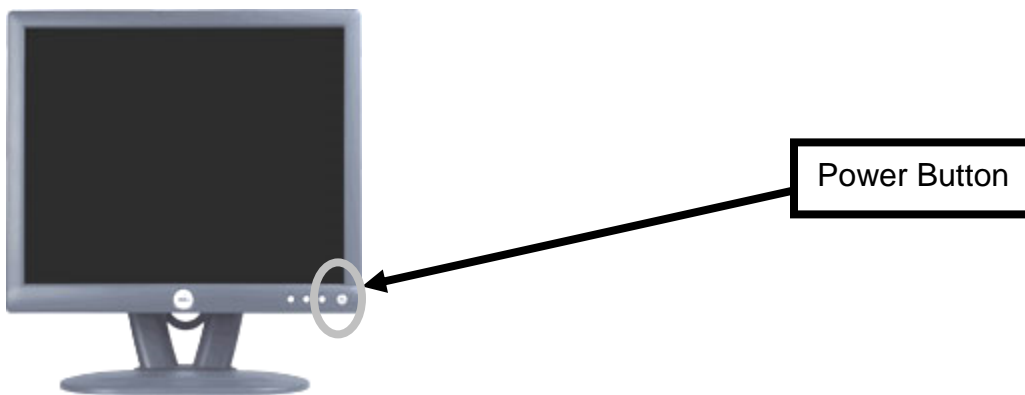
## Starting the computer (Booting up the computer)

Turn the computer on by pressing the power button. The power button is located on the front of the CPU. It usually looks like this:



It will take a couple minutes for the computer to start and load the programs. Depending on how your computer is set-up you may or may not have to log in with a user name and password.

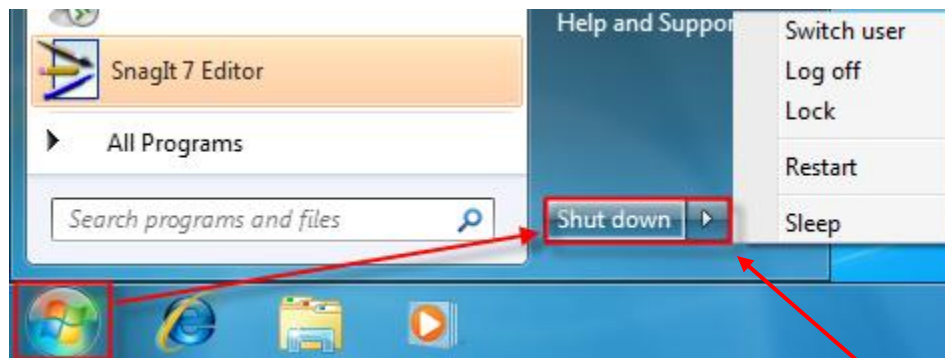
If you had manually turned the monitor off, you will have to turn it back on. The power button for the monitor is usually in the bottom right corner. If you had not manually turned off the monitor, you do not need to turn it back on. It will come on automatically when the computer boots up.



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## Shutting down the Computer

Left click on the Windows button, and then on the **Shut down** button.



It will automatically shut down.

If you would like to do something other than turn the computer off, click on the triangle next to the **Shut down** button. Your other options include:

- ↗ **Switch user** – If you have multiple user accounts set up on your computer you can switch users without restarting your computer.
- ↗ **Log off** – Choose this option to log out of your user account but keep the computer on.
- ↗ **Lock** – Choose Lock if you want to walk away from your computer for a time. It will remain On and the programs you were working on will remain open. When you come back you will have to reenter your password to get back into your user account (if you have a password set up).
- ↗ **Restart** – All of your programs close and your computer cuts all power. Then it turns itself back on.
- ↗ **Sleep** – The computer maintains a fast state of readiness. Power is cut to the hard drive and monitor, but you are still using some power as your open programs are held open and ready for you to continue the next time you push the power button. You are up and running in seconds.

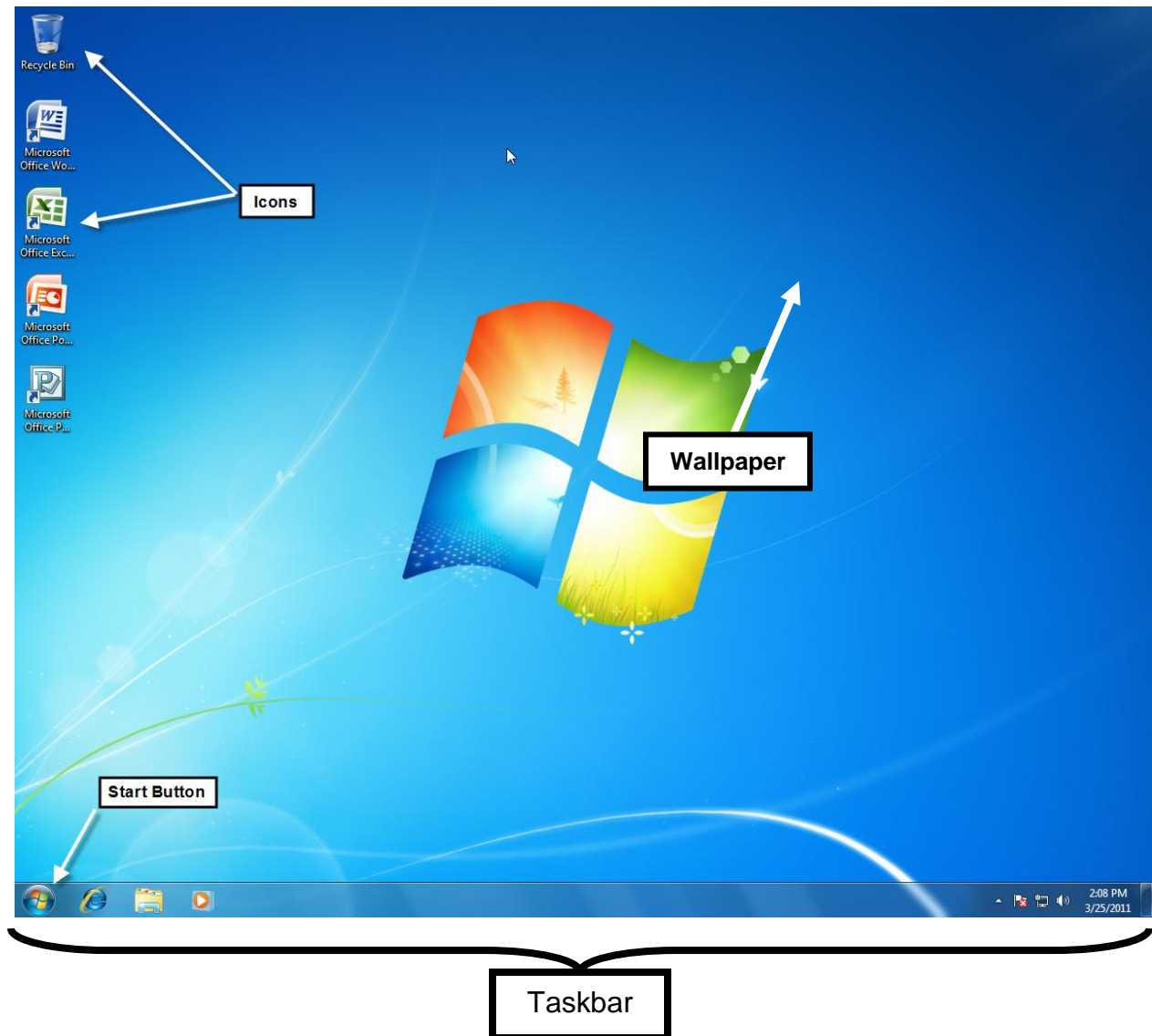
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## Desktop

The desktop is your work surface. It is the screen you see once your computer has finished booting up and you are ready to get started.

The small pictures are shortcuts to programs called icons. Double-click icons to start a program. Clicking the Start button also shows a list of programs and other options on the computer.

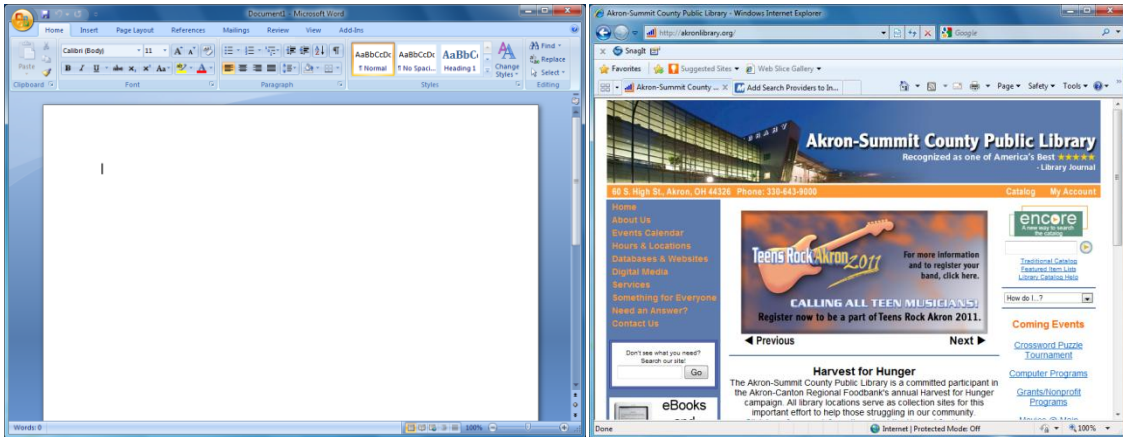
The blue bar across the bottom of the screen is the Task Bar. Here you can see the clock in the far right, and also what programs are open on your computer.



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## Software

Whereas a piece of hardware is a mouse, keyboard, monitor, or digital camera, a piece of software is a program that runs on the computer. Examples include Microsoft Word and Internet Explorer.



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## Practice Opening and Closing a Program

Double click the icon on the desktop for the program you want to open.



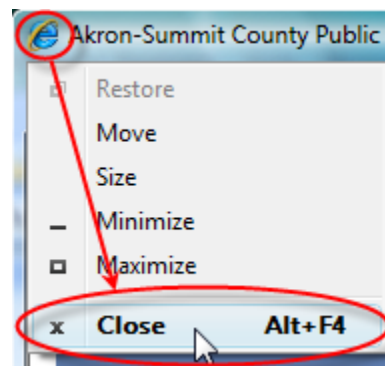
Click on the white X in the red box in the upper right corner of the window to close it.



If you have trouble double clicking, click once on the icon for the program you want to open, then hit the **Enter** key on the keyboard.



You can also close a program by clicking on the Program icon in the top left corner of the screen and then on **Close**.

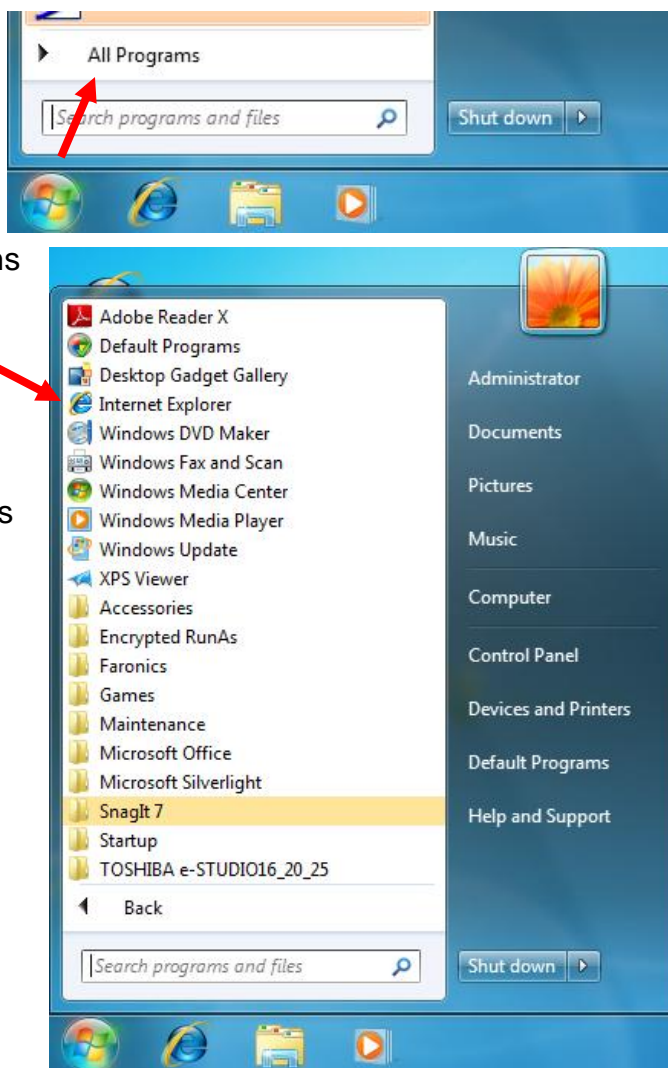


## The Start Menu

The Windows Icon has many uses. One thing it's useful for is that it is another way to open a program. If you have trouble opening a program using the icons on the desktop or if your computer does not display an icon for a program on the desktop you can look in the start menu.

Left click on the Windows Icon, then on **All Programs**. The list in the menu will change to show your programs list. Then click on the name of the program you wish to open (**Internet Explorer**, in this case).

Take some time to explore the list of programs in your **All Programs** list. This lists every program installed on your machine.



## Writing a Letter

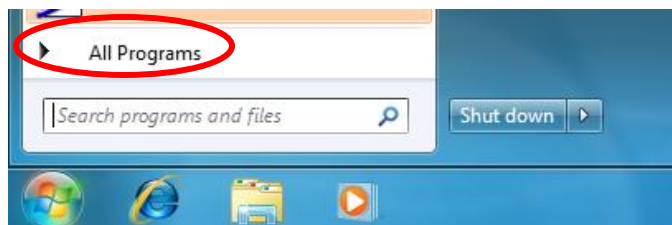
There are many different programs you can use to write a letter.

Your computer should come with a copy of Notepad. This program is very basic and only allows you to type. No formatting or text modifications are available.

Some computers come with Microsoft Works. If your computer does not come with this program, you can purchase it for around \$40. This program allows for basic formatting and text changes and is a nice alternative to the more expensive options.

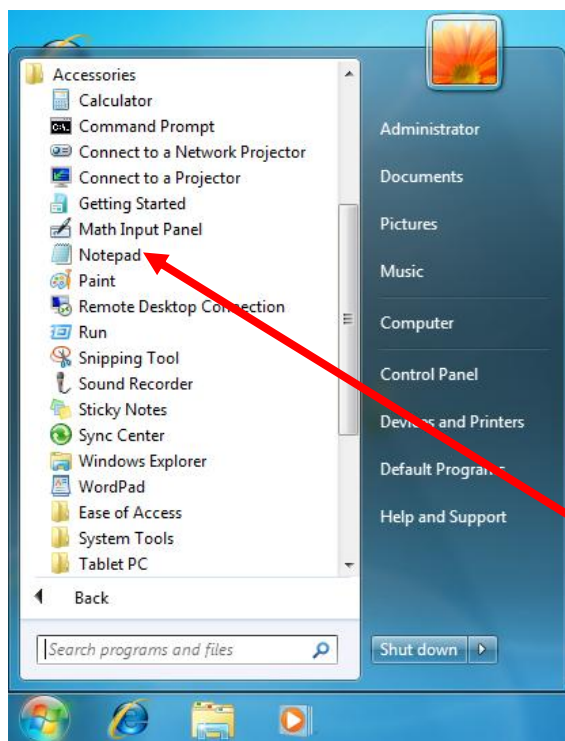
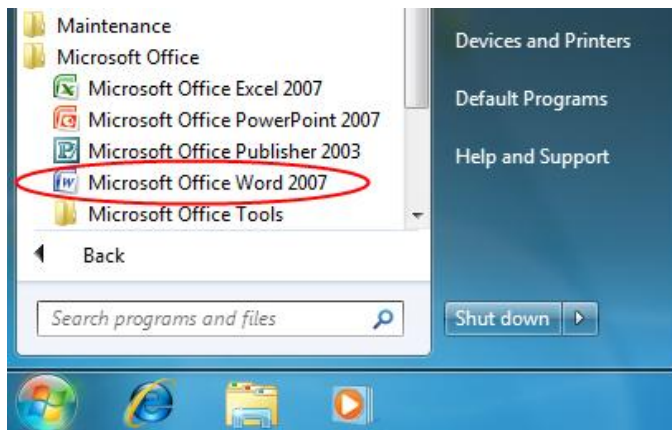
Most computers come with a 60 or 90 day trial version of Microsoft Word. After that time period you will have to purchase it to continue using it.

Click on your Windows Icon button. Go to the list of **All Programs**. Does your computer list one of these three programs?



Hints:

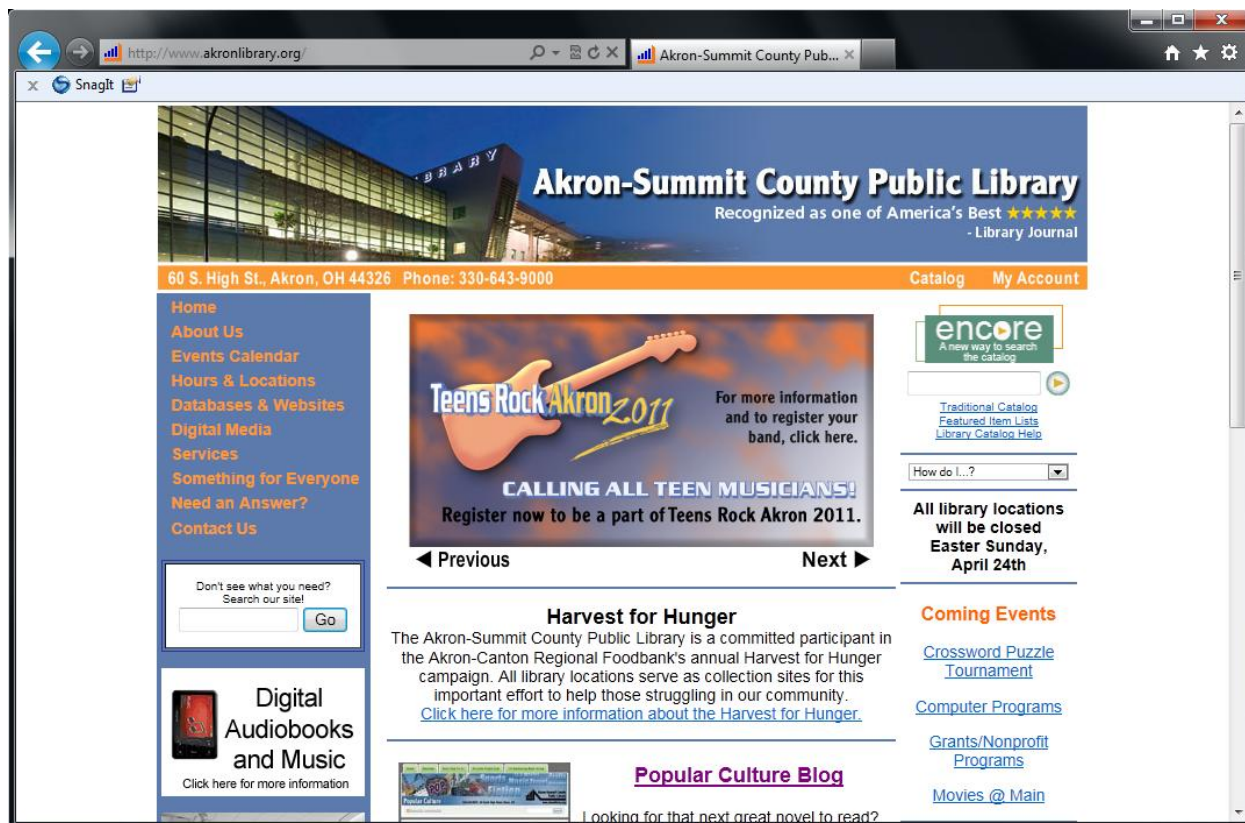
- Microsoft Word will be listed under the folder called **Microsoft Office**.



- Notepad is in a folder called **Accessories**. Note what other things are in the **Accessories** folder, like **Paint** and **Calculator**.

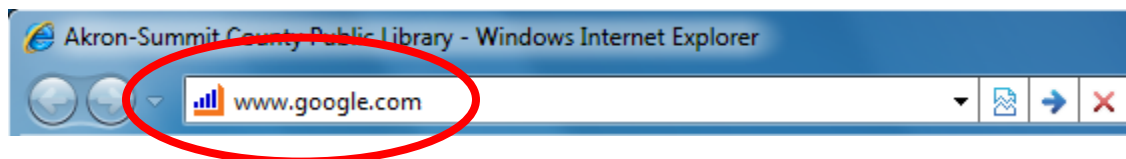
## Using the Internet

Practice using one of the techniques outlined on pages 6 and 7 to open Internet Explorer.



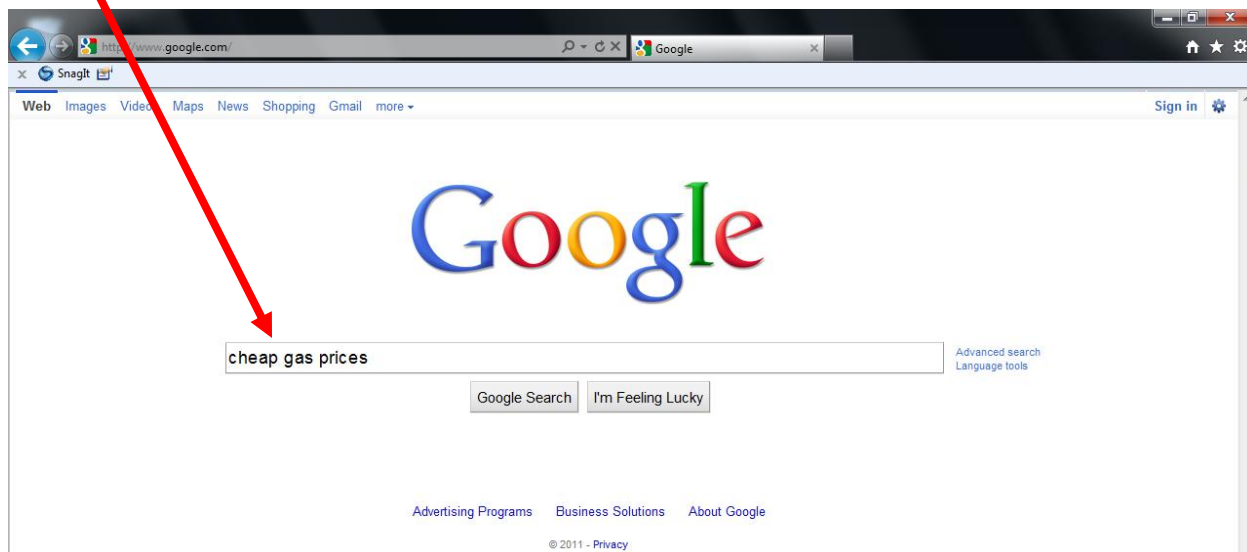
Internet Explorer is the most common program used to view Internet pages. Once your computer is has an Internet connection, you can go to any web page.

A fast way to jump right to the page you want to view is to type the page's address into the Address bar. Type [www.google.com](http://www.google.com) into your browser's address bar and hit the **Enter** key on your keyboard.

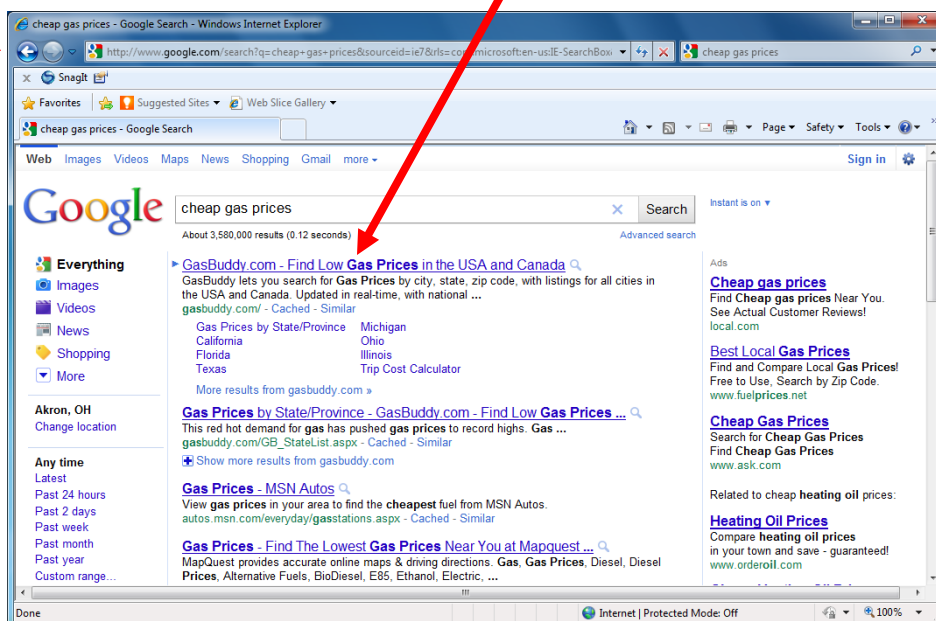




If you don't know the address of the page you want to go to, you can perform a search. You can either go to [www.google.com](http://www.google.com) and enter your search topic into the box in the middle of the page.



Hit the **Enter** key after typing into one of the two boxes. This will take you to a search results page. Click on one of the blue titles to see what is on that page, and use the **Back** button to return to the previous page.



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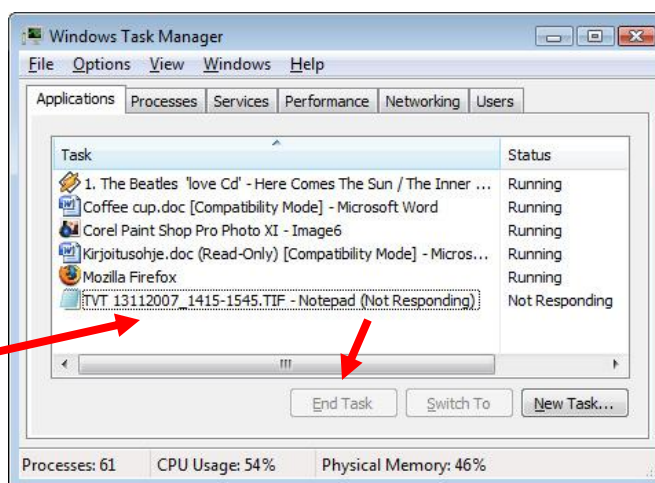
## Troubleshooting FAQ

### ***Can I leave my computer on all the time?***

Generally yes. If you use your computer frequently throughout the day then you will want to keep it on. You may want to at least turn your monitor off to prevent screen burn. However if you are on your computer for a hour or two per day then to save power and keep your machine cool you should turn it off when you are finished. You may also want to see other options on page 4.

### ***What should I do when everything freezes and the mouse and the keyboard don't work?***

First, make sure the mouse and keyboard did not come unplugged from the back of the computer. If that is not the problem, try pressing the ESC key in the upper left corner of the keyboard. You can also press CTRL+ALT+DELETE to open the Task Manager, click on the program that is not responding, and then click on **End Task**. If nothing seems to help then you will have to re-start your computer (and you may lose whatever you were working on).



### ***The computer is on, but the screen is blank.***

Check to be sure the monitor is turned on, plugged in, and connected to the computer. If the computer has not been in use for several minutes a screen saver may have started. Jiggle the mouse or press the space bar to stop the screensaver.

### ***Suddenly while I was typing EVERYTHING CAME OUT IN CAPITAL LETTERS.***

You probably pressed the Caps Lock key on the keyboard by mistake. Press it again to turn off the caps lock.

### ***Suddenly while I was typing the words I am typing are replacing other words.***

You probably pressed the Insert key by mistake. Press it again to turn off Insert and stop typing over existing text.

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## Safety Tips

### ***Use a surge protector***

Plug all your computer components into a surge protector. Then plug the surge protector into the wall outlet. The surge protector will protect your computer against power surges that can short out the system.



### ***Do not unplug any components until the computer is turned off and unplugged.***

This includes turning off and unplugging your surge protector. This is to prevent electric shock.

### ***Read the manual.***

The manufacturer's manual that came with the computer explains how to safely remove the case and handle the computer's components.

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## Housekeeping Tips

### ***Don't touch the screen.***

The oils from your fingers will leave fingerprints that are hard to remove. Avoid touching the screen if you can. To clean a CRT screen, spray some glass cleaner, or a mixture of 50% water and 50% rubbing alcohol, on a lint-free rag, then wipe the screen. Don't spray anything directly on the screen. To clean an LCD screen use LCD cleaner or cleaning cloths sold at most computer and electronics stores.

### ***Keep drinks and food away from the computer.***

This is tough, but one cup of coffee or can of pop can ruin your keyboard. Also crumbs can be a problem. To clean a keyboard, use compressed air, or a small clean paint brush to brush out lint and other debris.

### ***Keep magnets away from your hard drive.***

This isn't housekeeping, but a magnet can ruin your hard drive, so don't put any around the computer.

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## Computer Safety Tips

### ***What is a computer virus?***

A computer virus is a program that was written to intentionally harm your computer. Viruses are spread through email or other infected files, sometimes even from just visiting a web page.

### ***How to prevent a computer virus***

There are several things you can do to protect your computer from a virus. One is install anti-virus software on your computer and keep it up to date.

Also, do not open suspicious emails that have attachments or that come from people or organizations you do not know.

Before you download files to your computer be sure you know where the file is coming from and what it is. Always scan a file for viruses before downloading.

### ***What are Spyware and Adware?***

Spyware and Adware are small files or programs that track your internet surfing and send that information back to another web site. The programs slow your machine down considerably and may make it unusable.

### ***How to prevent Spyware and Adware***

These files are sent to your computer in the form of cookies, small files stored on your hard drive. Adjust your internet browser settings so that it does not accept all cookies from all web sites. Also, be careful about downloading software, especially file sharing software, from the Internet.

Several programs exist to protect your computer from spyware and adware. *Spybot Search and Destroy* and *AdAware* are two free programs that you use to scan your computer and remove spyware and adware. These programs can be downloaded free from the Internet. You can also purchase programs to protect your machine.

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## Computer vocabulary

**A:** The letter assigned to represent the 3 1/2 floppy disk drive.

**Application** Another word for program. Some examples of applications are Microsoft Word, Excel, Internet Explorer, FrontPage, and Access.

**Bit** The smallest unit of information handled by a computer. One byte is comprised of 8 bits.

**Boot** To start up the computer. During this process, the computer is loading the operating system and performing a series of tests to ensure that all components are functioning properly.

**Browser** An application that enables you to view images, hear sounds, run videos and animations of World Wide Web pages on the Internet. The two most popular browsers are Microsoft Internet Explorer and Netscape Navigator.

**Bug** An error in the hardware or software of the computer. Sometimes, the computer can assist with fixing the bug. Other times, you may have to seek the assistance of a repair technician.

**Byte** The amount of space needed to represent a single character. One byte is comprised of 8 bits. One keyboard character equals one byte.

**C:** The identifier assigned to represent the hard disk drive inside of the computer.

**Cache** (pronounced “cash”) A temporary storage area of the computer’s memory where frequently accessed data is kept. Caching helps to speed up the operation of frequently performed tasks.

**Carpal tunnel syndrome** A form of wrist and hand injury caused by repetitive movements such as typing. Sitting properly at the computer, as well as properly positioning the keyboard and mouse can prevent it.

**CD-ROM** Compact Disc-Read Only Memory. A high capacity storage device capable of holding up to 650 megabytes of data (the equivalent of 500 floppy disks or 300,000 pages of text. The information stored on a CD-ROM cannot be altered or edited. A CD-ROM drive must be installed on the computer in order to use a CD-ROM.

**CPU** Central Processing Unit. The “brains” of the computer. An electronic device (circuit board or computer chip) comprised of millions of electronic components that carry out basic functions on your computer. You will not actually be able to see when these functions are being performed.

**Click** To press and release a mouse button quickly in order to make a selection or perform an action. When “click” is used as a command, it usually refers to pressing the left mouse button once.

**Crash** What happens when your computer unexpectedly stops or freezes while you are working on a task. The computer does not respond to any keyboard or mouse commands. A crash may be caused by any number of problems with the hardware or software, or a virus. A crash usually involves having to re-boot the computer.

**Cursor** A special character within an application that shows where the next character will appear when something is typed. In most cases, you will be able to identify the cursor as a vertical blinking bar.

**Desktop** Your “work space” area. The area visible on the monitor screen where you can place shortcut icons to applications, files, folders, and peripherals. After the computer completes its boot process, the desktop will display.

**Dialog box** A window that will display a message or prompt you to make a selection. Some kind of action must be taken before the dialog box will close and permit you to continue working.

**Disk drive** The mechanism that reads and writes information from or to a disk. Types of disk drives include floppy disk drive (A:), CD-ROM drive, zip disk drive, or hard disk drive (C:).

**Download** To transfer a copy of a file(s) from a remote computer onto your computer. Files will typically be downloaded from the Internet to your computer’s hard disk.

**Dragging** Select something, hold down the left mouse button, and move whatever is selected to another area of the screen, then release the mouse button. Types of objects that you might move are shortcut icons, folders, and files

**Drop-down list** A list of options that will display when you click on a downward facing arrow.

**E-mail** Electronic Mail. Messages that are sent and received between computers using the Internet.

**“Esc” key** Escape key. Located in the upper left corner of your keyboard. When pressed, the Esc key will cancel an action or process from continuing.

**FAQ** Frequently Asksed Questions

**File** A collection of information, such as a document, that is stored (3 ½ floppy disk, hard disk, etc.) for future use.

**Gigabyte** Equal to 1,024 megabytes = 1,024,000 kilobytes = 1,024,000,000 bytes!!!

**Hard disk** A storage area housed inside of the computer used to save files for future use. Hard disks on new computers are capable of storing many gigabytes of data.

**Hardware** All of the machinery and physical parts of a computer system. Hardware includes things like the CPU, monitor, hard disk drive, printer, mouse, keyboard, etc.

**Hyperlink (link)** The means by which Internet users move among different bits of information on World Wide Web pages. The mouse pointer will change to a pointing hand when it is rolled over a hyperlink. Hyperlinks can be words, pictures, or other symbols. Word hyperlinks can often be identified by their bright blue, underlined text.

**Icon** A small picture used to represent things like files, folders, applications, commands, etc. Icons are often convenient shortcuts for opening an item or starting an operation. The desktop is a place commonly used for shortcut icons. The mouse is used to access an icon's corresponding item or function.

**Internet** A worldwide network of computers. This "network of networks" enables computer users to electronically communicate with each other, view pages on the World Wide Web, and access an endless world of information.

**Internet Service Provider (ISP)** A company or service that provides subscribers with a connection to the Internet. A fee is typically charged for Internet connection services.

**Megabyte (MB)** Equal to approximately 1024 kilobytes or more than one millions bytes.

**Memory** An internal component of the computer where files, software applications, and other data can be saved/stored.

**Menu** A list of commands or options from which you can make a selection. For example, the Start menu lists all of the software applications that the user can open on the computer. Menus in software applications enable the user to edit, format, and perform other functions within files and documents.

**Microsoft Windows** The operating system that runs most personal computers. It uses icons (picture shortcuts) and pull-down menus so that users can interact with applications, files, folders, disks, and other functions more easily.

**Modem** A piece of communications hardware that enables computers to exchange electronic data with each other via telephone lines. A modem is the data transmission device used for faxing and dial-up Internet service.

**Monitor** The piece of hardware that looks like a television screen, displaying information from the computer.

**Mouse** A device that controls the movement of the pointer. The mouse button is pressed to perform various functions, including placing a cursor, selecting items, opening files and applications.

**My Documents** A common place to save files. All files saved to My Documents are stored on the hard disk (C:). This is a good place to temporarily store files because it is always accessible from the desktop and Start menu, as well as every time a file is about to be saved.

**Network** Two or more computers that are connected for the purpose of sharing files, folders, programs, printers, and other resources.

**Operating system** The software that runs, monitors, and controls every function performed on a computer. Microsoft Windows is the operating system that runs most personal computers.

**Peripheral** An external hardware component that is typically attached to the computer's system unit case, such as the keyboard, mouse, printer, monitor, scanner, etc.

**Reboot** To turn off and restart the computer. This procedure is often necessary when the computer freezes, crashes, or when new software has been installed.

**Recycle bin** The place where deleted files are temporarily stored until the user permanently deletes them from the computer. Files may be retrieved from here if they were unintentionally deleted. The recycle bin must be emptied periodically in order to free up storage space on the hard disk (C:).

**Scroll bar** A vertical or horizontal bar on the right side or bottom of a window that enables the user to move to parts of a document that are not within immediate view. Clicking on the directional arrows enable the user to move up/down (vertical bar) or left/right (horizontal bar) within the document.

**Selecting** Marking a block of text by holding down the left mouse button and gliding the mouse over it. Selecting allows you to edit, format, or perform some other action on the marked area. Selected text will appear in a contrasting color. Selecting can also refer to making a choice in a dialog box by clicking on an option.

**Start button** Enables the user to access all of the software programs that are installed on the computer, as well as the My Documents folder.

**Taskbar** The area of the computer screen (typically the bottom) that displays an icon for each open window. The user can move among the open windows by clicking the mouse on one of the icons or by "toggling", using the Alt and Tab keys. The Start button is located in the taskbar.

**Title bar** The horizontal bar running along the top of the active window that displays the name of the file and the software program that is running. It also contains, the minimize, maximize/restore, and close shortcut buttons on the right side of the window.

**Virus** A program that is designed with purely malicious intent. The intent of viruses range anywhere from generating a very large list of e-mail addresses to causing serious file damage on a computer.